

## ADDITIONAL O<sub>2</sub> YOKE

### INSTALLATION PROCEDURE

**NOTE:** This procedure applies to NM2A, NM2B, NM3 and NM4 without a drop leaf table top; domestic, ISO and CSA machines.

1. Disconnect all pipeline hoses and set the System Power switch to ON.
2. Close the oxygen cylinder valve, close all flow control valves. Press the O<sub>2</sub> Flush valve to drain oxygen pressure from the system.
6. Remove the "dummy" bolt and hex nut securing the yoke block to the frame assembly.
7. Position the additional O<sub>2</sub> yoke assembly next to the existing O<sub>2</sub> yoke on the yoke spacer block on the side of the machine (see Figure 1). Secure the assembly to the machine frame with two 5/16-24 x 1-3/4 in. socket head screws and 5/16 lock washers.

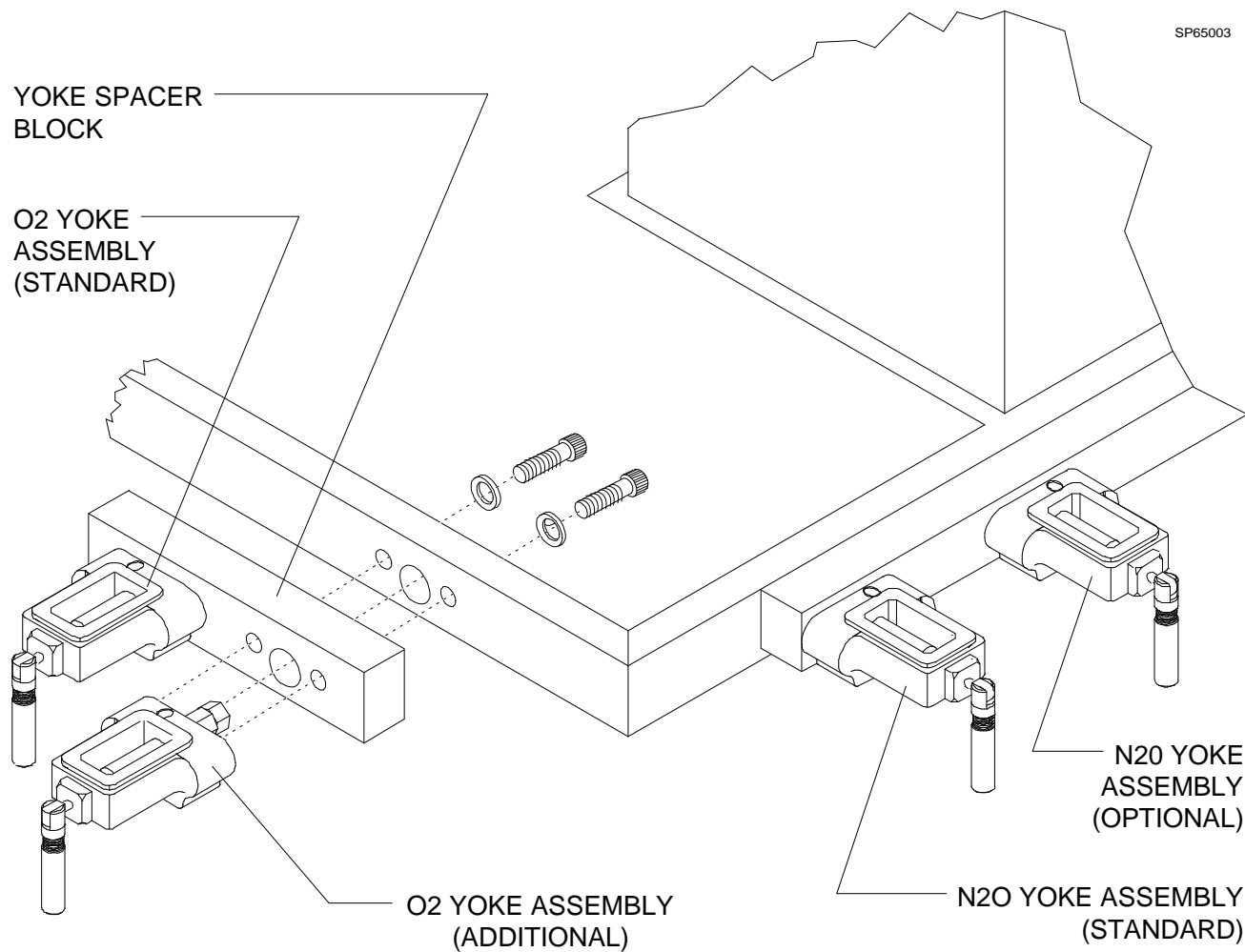
**WARNING:** Verify that the oxygen cylinder pressure gauge indicates 0 Psi before continuing with this procedure.

3. Set the System Power switch to STANDBY.
4. Remove the screws securing the table top to the machine and remove the table top.
5. Pull the writing or keyboard tray out to its fully extended position (if applicable).

For CSA machines, install a 7/16 ID vinyl cap on the head of each screw. Secure the caps with a small amount of Loctite #416 on the inside of each cap.

For ISO machines, remove the green O<sub>2</sub> label from the oxygen yoke and apply a white O<sub>2</sub> label.

**INSTALLATION PROCEDURE (continued)**



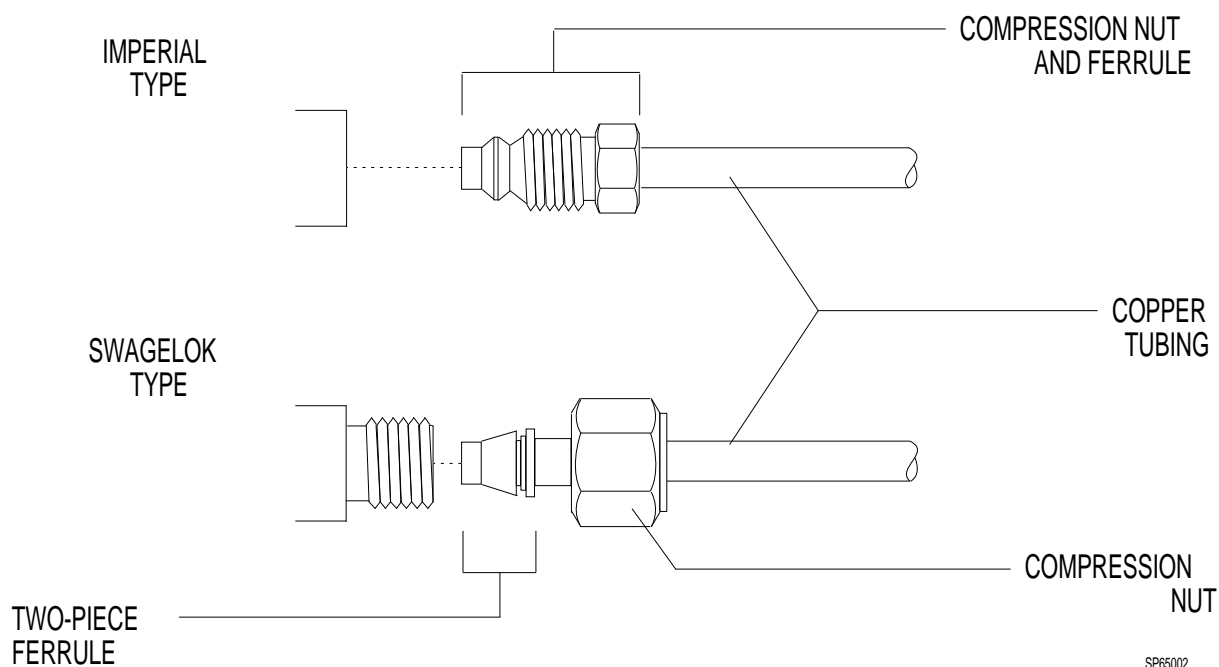
**Figure 1: INSTALLATION OF ADDITIONAL O<sub>2</sub> YOKE**

## INSTALLATION PROCEDURE (continued)

8. Locate the TEE fitting at the inlet port of the O<sub>2</sub> cylinder pressure regulator, and remove the plug from the TEE fitting.

On machines with E-Z plumb piping, replace the existing elbow with tee fitting P/N 4109404.

9. Examine the plug that was removed and determine the type of fittings to be used at the regulator connection. Figure 2 shows the correct assembly for two types of compression fittings.

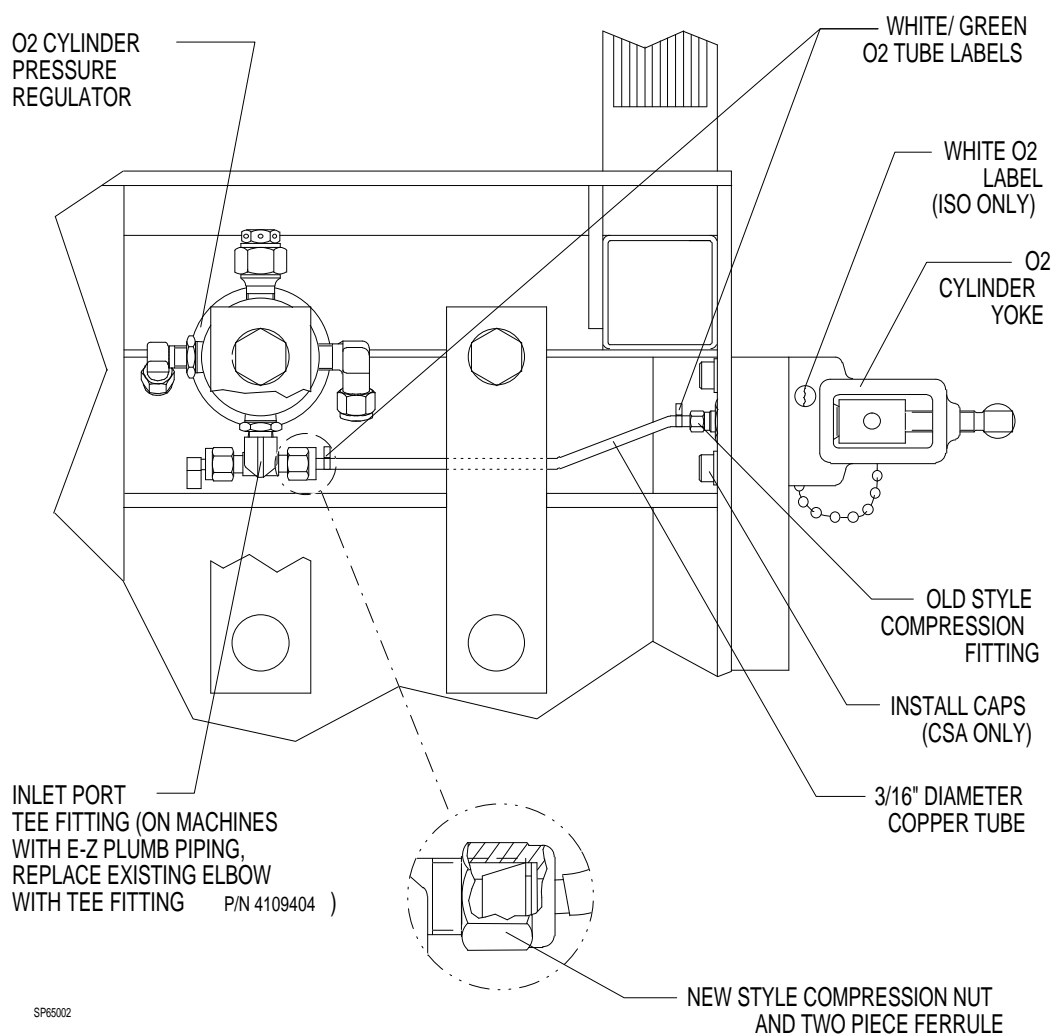


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Figure 2: COMPRESSION FITTING STYLES

## INSTALLATION PROCEDURE (continued)

10. Connect a 3/16 in. diameter pre-bent copper tube between the O<sub>2</sub> yoke assembly check valve and the TEE fitting in the O<sub>2</sub> cylinder pressure regulator inlet port (see Figure 3). Carefully form and trim the tubing as necessary, and install the correct style 3/16 in. compression nut and ferrule on the inlet port end of the tube. Tighten the connections at both ends securely, and install a white/green "O<sub>2</sub>" label at each end of the tube.
11. Reinstall the table top with the screws that were previously removed.
12. Attach an O<sub>2</sub> cylinder to the O<sub>2</sub> yoke, making sure that a sealing washer is correctly installed and the index pins are properly engaged before tightening the bolt. The cylinder should hang vertically after the handle is tight.
13. Perform the tests outlined in the next section.



**Figure 3: COPPER TUBE CONNECTIONS**

## TEST PROCEDURE

### Leak Test

1. Open the cylinder valve, and let the pressure stabilize. The O<sub>2</sub> cylinder used for this test must have a minimum pressure of 1000 Psi, as indicated on the cylinder pressure gauge.
2. Close the O<sub>2</sub> cylinder valve and remove the cylinder from the yoke.
3. Observe the O<sub>2</sub> cylinder pressure gauge; after two minutes the pressure shall not drop more than 50 Psi.
4. Re-attach the O<sub>2</sub> cylinder to the yoke.

### Oxygen Flowmeter Test

5. Open the O<sub>2</sub> cylinder valve and let the pressure stabilize.
6. Open the O<sub>2</sub> flow control valve and ensure that it is possible to adjust the flow of oxygen over the full range of the flowmeters.
7. Close the O<sub>2</sub> cylinder valve.

### Oxygen Concentration Test

8. Connect a 12-inch hose to the inspiratory valve.
9. Set the Man/Auto selector to BAG.
10. Close the APL valve.
11. Occlude the bag mount.

12. Insert the sensor from a calibrated oxygen analyzer into the valve dome adapter on the inspiratory valve.
13. Close all flow control valves.
14. Open one N<sub>2</sub>O cylinder valve.
15. Depress the O<sub>2</sub>FLUSH button for 15 seconds.
16. Set the oxygen flow to 4 l/min.
17. The oxygen analyzer shall read 97-100% within 3 minutes.
18. Set the nitrous oxide flow to 2 l/min.
19. The oxygen concentration shall be 64-70%.
20. Close the N<sub>2</sub>O cylinder valve to drain nitrous oxide pressure from the system.
21. Close the N<sub>2</sub>O flow control valve.
22. Close the O<sub>2</sub> cylinder valve to drain oxygen pressure from the system.
23. Close the O<sub>2</sub> flow control valve.
24. Reattach the pipeline pressure hoses.
25. Perform a complete PMS procedure on the machine.



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